

### REMARKS

Applicants respectfully request entry of the foregoing and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow.

Claims 10-21 are pending in the application.

By the above amendments, Applicants amended claim 10 to further clarify that the claim is directed to a method of using a composition in an adhesive wherein the composition comprises for successive or simultaneous addition to said adhesive an isocyanate composition (a) and a surfactant (b). Applicants also amended the dependent claims, where appropriate, to make the dependent claims consistent with independent claim 10. Applicants also amended claim 11 to provide units for the recited viscosity to address the §112 issue. A claim that has been amended in a manner that does not narrow the claim's scope should be accorded its full range of equivalents.

Applicants thank the Examiner for acknowledging Applicants' request for continued examination under 37 C.F.R. §1.114, for withdrawing the finality of the previous Official Action and for entering Applicants' submission filed on May 12, 2008.

Turning now to the Official Action, claim 11 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite. For at least the reasons that follow, withdrawal of the rejection is in order.

In order to obviate the rejection, Applicants amended claim 11 to include units for the recited viscosity. Support for this amendment can be generally found in the specification.

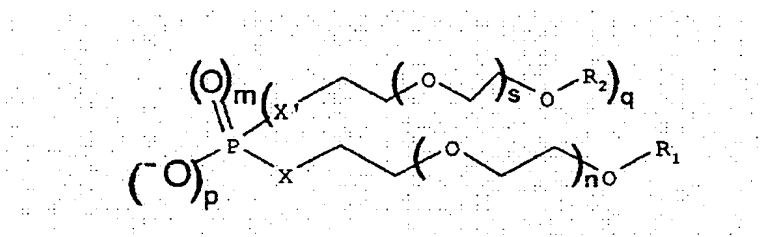
For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the §112, second paragraph, rejection of claim 11.

Claims 10-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by Nabavi (WO97/31960, which the Official Action asserts is equivalent to U.S. Patent Application Publication No. U.S. 2003/0158328). For at least the reasons that follow, withdrawal of the rejection is in order.

Independent claim 10, as amended above, recites a method of using a composition in an adhesive, said composition comprising, for successive or simultaneous addition to said adhesive,

an isocyanate composition a) with a mass content of N=C=O function of between 10% and 30%, and with a viscosity of not more than 2500 mPa.s, and

a surfactant b) comprising a compound or a mixture of compounds of mean general formula:



wherein:

p represents a value between 1 and 2 (closed intervals, i.e., comprising the limits);

m represents zero or 1;

the sum  $p+m+q$  is equal to 3;

the sum  $1+p+2m+q$  is equal to 3 or 5;

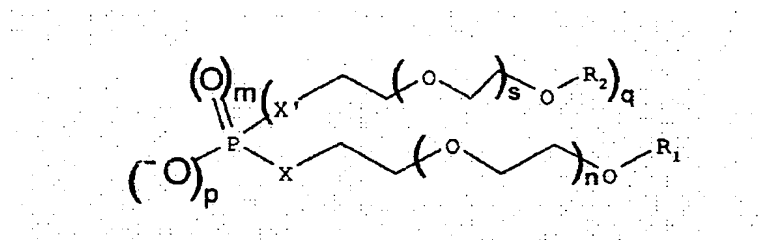
X is an oxygen;

X' is an oxygen;

n and s have the same statistical value, chosen between 5 and 30, wherein R<sub>1</sub> and R<sub>2</sub>, which are identical, are chosen from aryl radicals, and R<sub>1</sub> and R<sub>2</sub> represent an alkylaryl of 10 to 20 carbon atoms. (Emphasis added.)

Independent claim 18 defines an adhesive composition, comprising:  
an isocyanate composition a) with a mass content of N=C=O function of between 10% and 30% and with a viscosity of not more than 2500 mPa.s;

a surfactant b) comprising 50% by mass of a compound or mixture of compounds of general formula:



wherein:

p represents an integer between 1 and 2;

m represents 0 or 1;

the sum p+m+q is equal to 3;

the sum 1+p+2m+q is equal to 3 or 5;

X is an oxygen;

X' is an oxygen;

n and s, which are identical or different, represent an integer chosen between 5 and 30, wherein R<sub>1</sub> and R<sub>2</sub>, which are identical, are chosen from aryl radicals,

R<sub>1</sub> and R<sub>2</sub> represent an alkylaryl of 10 to 20 carbon atoms; and

an aqueous phase with a pH of between 4 and 9. (Emphasis added.)

It is well-established that in order to demonstrate anticipation under §102, each feature of the claim at issue must be found, either expressly described or under principles of inherency in a single prior art reference. *See, Kalman v. Kimberly-Clark Corp.*, 218 USPQ 798 (Fed. Cir. 1983). That is not the case here.

Nabavi relates to isocyanate-based compounds and compositions. It also relates to their process for utilization, their utilization for producing coating and coatings thus obtained. (See, Nabavi at column 1, paragraph [0001].) In particular, Nabavi is directed to compositions for use in paints and varnishes. (See, Nabavi at column 1, paragraph [0005].)

Although the Official Action has maintained its position that the claims are anticipated by Nabavi, Applicants again urge the Examiner to consider Applicants' following remarks. Applicants continue to believe that the pending claims directed to a method of using a composition in an adhesive and an adhesive composition (making use of emulsifiable isocyanates comprising isocyanate and surfactant) are clearly distinguished from Nabavi, which is directed to compositions based on isocyanate comprising compounds having anionic functions and a fragment of polyethylene glycol. Again, Applicants believe that is not an insignificant difference that the compositions of Nabavi are paints and/or varnish compositions; not adhesive compositions. (See, Nabavi at column 1, paragraphs [0005], [0010] and [0011].) (Also see, Nabavi at page 10, Examples 10-12, which discuss industrial paint compositions.) Nowhere does Nabavi disclose or suggest a method of using a composition in an adhesive or an adhesive composition, as claimed in independent claims 10 and 18, respectively.

To further support Applicants' position that Nabavi cannot anticipate the

subject matter of the pending claims (because of the understood difference between the coatings of Nabavi and the method and adhesive composition claimed), Applicants have provided the attached definitions from the Coatings Encyclopedic Dictionary. Applicants submit that the paint and varnish compositions of Nabavi would be understood by those of ordinary skill in the art to be coatings, which are completely different from adhesives. Just because a coating can adhere to a substrate does not mean that the coating is an adhesive. For example, the attached definitions from the Coatings Encyclopedic Dictionary define "coating" to mean paints, lacquers, enamels, printing inks, etc., or a liquid, liquefiable or mastic composition which is converted to a solid protective, decorative, or functional adherent film after application as a thin layer." (Emphasis added.) In contrast, "adhesive" is defined as a substance capable of holding materials together by surface attachment. (Emphasis added.) Notably, the definition provided for "adhesive" further states that "adhesive" is a general term including cement, glue, mucilage and paste, but is not described to include coatings or more specifically, paints and varnishes like those described in Nabavi. The aim of a coating is to bring protective, decorative or functional properties (as provided in the attached definition), which is substantially different from an adhesive, which is designed to join two materials together. Applicants further submit that a coating composition will not have the same properties as an adhesive when used as a coating (i.e., when deposited as a thin layer on a support or when used between two supports to be joined). For example, the drying properties of the coating composition will not be the same as an adhesive.

Furthermore, Applicants continue to submit that one of ordinary skill in the art

would not have been motivated by Nabavi to use the isocyanate paint or varnish compositions (i.e., coating compositions) of Nabavi as adhesive compositions because the properties of paint and varnish compositions (e.g., gloss, chemical resistance, and hardness (discussed at Examples 10-12 of Nabavi)) are totally different from the properties of adhesive compositions (e.g., breaking strength and peeling (discussed on pages 26 and 28 of the instant application)). Again, this lack of motivation is consistent with the understood meaning of the terms "coating" and "adhesive," as defined in the Coatings Encyclopedic Dictionary.

Accordingly, Applicants submit that Nabavi does not anticipate the method defined in independent claim 10 or the adhesive composition defined in claim 18 because Nabavi does not disclose or fairly suggest a method of using a composition in an adhesive or an adhesive composition. Instead, Nabavi is directed to processes for preparing coating compositions (i.e., paint and varnish compositions) and the resulting coating compositions (i.e., paint and varnish compositions).

Further, in evaluating the patentability of the independent claims, Applicants continue to submit that the elements recited in the preamble of the independent claims should be considered. Applicants continue to submit that the elements in the preamble cannot be ignored under applicable legal precedent because they further distinguish the claimed method and composition from Nabavi. The preambles of these claims help to demonstrate that the claimed method and composition are different from those disclosed or suggested in Nabavi (i.e., directed to coating compositions (paint and varnish) having properties such as gloss, chemical resistance and hardness as opposed to adhesive compositions that exhibit breaking strength and peeling).

It has been established that when the preamble gives life and meaning to the claimed subject matter, then the elements do limit the scope of the claim. (See, *Loctit Corp. v. Ultraseal, Ltd.*, 781 F.2d at 866, 288 USPQ at 92; *Perkin-Elmer Corp. v. The Computer Vision Corp.*, 732 F.2d 888, 896, 221 USPQ 669, 675 (Fed. Cir. 1984).) Furthermore, courts have found claim preambles to be "limiting when the introductory phase was deemed essential to point out the invention defined by the claim...." (See, *Kropa v. Robie*, 187 F.2d 888, 150 USPQ 478, 481 (CCPA 1951).)

Applicants submit that because the phrases used in the preambles of the above independent claims define the claimed method and composition as a method of using a composition in an adhesive and an adhesive composition, Applicants submit that the preambles of the claims point out the invention defined therein and, thus, give life and meaning to the claimed subject matter.

Moreover, courts have held that the preamble of the claim is limiting when the claim expressly incorporates language of the preamble into the body of the claim (see, for example, *CFMT, Inc. v. Yeldup Int'l Court*, 92 F. Supp.2d 359 (D. Del. 2000).) For example, in the present application, independent claim 10 defines a method of using a composition in an adhesive and then states that said composition comprises elements for successive or simultaneous addition to said adhesive. Accordingly, the preamble of claim 10 states that the method is for using a composition in an adhesive and the body of the claim recites that the composition comprises elements for successive or simultaneous addition to said adhesive. Thus, while the preambles of the independent claims already breathe life and meaning into the body of the claims, the bodies of the claims refer back to elements recited in the preambles. Accordingly, Applicants submit that the preamble language of these

claims cannot be ignored under applicable legal precedent for at least this additional reason.

For at least these reasons, Applicants respectfully submit that claims 10 and 18 are patentable over Nabavi. The remaining claims (claims 11-17 and 19-21) depend, directly or indirectly, from these independent claims, and are, therefore, also patentable over Nabavi for at least the reasons that claim 10 and 18 are patentable.

From the foregoing, Applicants earnestly solicit further and favorable action in the form of a Notice of Allowance.

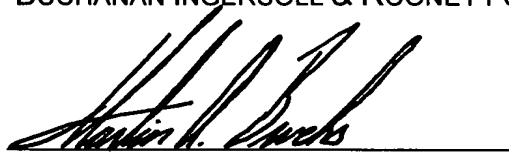
If there are any questions concerning this paper or the application in general, Applicants invite the Examiner to telephone the undersigned at the Examiner's earliest convenience.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: October 9, 2008

By:



Martin A. Bruehs  
Registration No. 45635

P.O. Box 1404  
Alexandria, VA 22313-1404  
703 836 6620

Attachment: Coatings Encyclopedic Dictionary, definitions of "coating" and "adhesive" (1995).



# Coatings Encyclopedic Dictionary

Edited by  
Stanley LeSota

Published by  
Federation of Societies for Coatings Technology  
492 Norristown Road, Blue Bell, PA 19422-2350



## coal tar-epoxy coating

when the surface of the substrate is coated with a coal tar-epoxy coating in which BINDER OF COAL TAR is a combination of COAL TAR with EPOXY RESIN.

for several reasons. 77.148 cf. LIT. (1) aromatic hydrocarbons AROMATIC HYDROCARBONS (2) from COAL TAR, including BENZENE, TOLUENE, NAPHTHA, etc. 164

nitro compounds (3) the DISTILLATION residue from COAL TAR. 76 (4) the fusion points vary from as low as 100°C to as high as 232°C (450°F).

TRANSFERRING RESINS see COUMARONE-INDENE RESINS. 167

TRANSPARENT COATING coating in which BINDER OF COAL TAR is a combination of COAL TAR with a POLYESTER RESIN. 71

(VARNISH OF COAL TAR) the formation of a film of resinous or plastic material when water evaporates from a solution or latex system, permitting contact and fusion of adjacent latex particles. Action of the volatile solvent (VAC) (DAC)

SEPARATION OF COAL TAR particles. 71 (2) The Test Method D3793 covers the coalescing agent (coalescing agent) solvent with a high boiling point which, when added to a coating, aids in the formation via temporary PLASTICIZATION of the vehicle. 55, 52, 164

SYNTHETIC COAL TAR (coalescing agent) solvent with a high boiling point which, when added to a coating, aids in the formation via temporary PLASTICIZATION of the vehicle. 55, 52, 164

WOOD GRAIN wood with wide and conspicuous annual rings having considerable difference between the early and late wood. 153 (ASTM)

WOOD GRAIN sometimes used to designate wood with coarse pores, such as oak, ash, chestnut, and hickory, but in this sense the term "coarse texture" is more often used.

WOOD GRAIN texture see COARSE GRAIN. 153

WOOD GRAIN VARNISH, OR LACQUER applied to a SURFACE in a single APPLICATION (one layer) to form a properly distributed film when dry. 54, 55

WOOD GRAIN COATING system usually consists of a number of coats separately applied in a predetermined order at suitable intervals to allow for DRYING or CURING. It is possible with certain types of materials to build up coating systems of adequate thickness and adhesion by a more or less continuous process of application, e.g., wet-on-wet spraying. In such a case, no part of the system can be defined as a separate coat in the above sense.

WOOD GRAIN COATING a flexible-type backing upon which a coating of adhesive holds and supports a coating of abrasive grains. 59

WOOD GRAIN COATING backing may be paper, cloth, vulcanized rubber, or a combination of these materials. Various types of resin and hide GLUES are used as adhesives. The abrasives used are flint, emery, corundum, aluminum oxide, and silicon carbide.

coated paper a PAPER coated with CLAY, other white pigments, and a suitable binder. 168

coater apparatus which applies paint. 59, 70

coating (1) generic term for paints, LACQUERS, ENAMELS, PRINTING INKS, etc. 71 (2) a liquid, liquefiable or mastic composition which is converted to a solid protective, decorative, or functional ADHERENT FILM after APPLICATION as a thin layer. It is also used to refer to films applied to PAPER, PLASTICS, OR FOILS. 71 (ASTM) See FINISH. 54, 71

coating, dip see DIP COATING. 77

Coatings Industry Education Foundation (CIEF) Foundation which has as its goal to advance, through education and research, the chemical, physical, and mathematical sciences relating to the technology of protective coatings, and to aid in the dissemination of the results of such research and education to the public, through scientific publications and lectures. The Board of Directors of the Federation of Societies for Coatings Technology constitute the stockholders or members of the CIEF. It is the duty of the Trustees to manage the business affairs of CIEF, including allocating funds for educational purposes. 174

coating powders (1) finely divided, solid PLASTIC materials which are heat fusible and form relatively smooth, tough, electrical insulating coatings upon APPLICATION to METAL surfaces. 71 (ASTM) (2) finely divided particles of ORGANIC POLYMER, either THERMOPLASTIC OR THERMOSETTING, which generally contain pigments, fillers, and additives and which remain finely divided during STORAGE under suitable conditions. 71 (ASTM) See POWDER COATINGS. 71, 77

coating solids the part of the coating which remains after the coating is DRIED OR CURED. 128 (EPA) See SOLIDS, NONVOLATILE MATTER, SOLIDS BY VOLUME, and SOLIDS BY WEIGHT. 128

coating, spray the PROCESS in which a SUBSTRATE is sprayed with the coating material. 77 (ASTM)

coating system see COAT. 54

coatings remover see PAINT and VARNISH REMOVER. 158, 164

Coatings Societies International (CSI) an international organization of coatings technical associations whose purpose is the advancement of international relations and technical communications. Member organizations include FEDERATION D'ASSOCIATION DES TECHNICIENS DES PEINTURES,

## additive color mixture

8

**additive color mixture** COLOR which results when the same area of the retinas of the eye is illuminated by LIGHTS of different SPECTRAL DISTRIBUTION, such as by two or more colored lights.<sup>43,69</sup>

Additive color mixture may result from addition of lights from two or more projectors, by visual averaging of small colored dots as on colored television screens, by visual averaging of spinning or flickering colors, or by different stimulation of each of the two retinas of a single observer (binocular fusion). Should be distinguished from SUBTRACTIVE COLORANT (PIGMENT OR DYE STUFF) MIXTURE.

**additive reaction** chemical reaction in which two components join together to form a single reaction product.<sup>123,134</sup>

In a pure additive reaction, neither of the reactants undergoes MOLECULAR fission or splitting, but attaches itself to the other reactant intact. In other additive reactions, one of the reactants may split into two separate parts, each of which attaches itself to the appropriate places of the other intact reactant. There is still, however, a single reaction product.

**adduct** a CHEMICAL addition product, such as the cyclic product of the addition of a diene with another UNSATURATED COMPOUND (as MALEIC ANHYDRIDE).<sup>124</sup>

**adduct curing agent** see CROSSLINKING AGENT.<sup>67,83,74</sup>

**adepts lanac, anhydrous** pharmaceutical name for LANOLIN or purified WOOL GREASE.<sup>14,137</sup>

**adhere** to cause two surfaces to be held together by ADHESION.<sup>79</sup> (ASTM)

**adherend** body which is held to another body by an ADHESIVE.<sup>79</sup>

**adherometer** instrument which measures the FORCE required to strip a coating from a metal surface.<sup>145,79</sup>

**adhesion** state in which two surfaces are held together by INTERFACIAL FORCES which may consist of valence forces or interlocking action, or both.<sup>79</sup> (ASTM)

ASTM test methods for adhesion include: cut tape test, D3359; Dillon dynamometer test, D4796; HIPAC coatings, D3730; portable tester, pull-off strength, D4541; prepainted fabricated metal, D4145; scrape test on smooth surfaces, D2197; traffic marking paints, materials, D4796; zinc-rich primer on steel, D4146.

**adhesion, mechanical** ADHESION between surfaces in which the ADHESIVE holds the parts together by interlocking action.<sup>79</sup> (ASTM) See ADHESION, SPECIFIC.<sup>79</sup>

**adhesion promoters** materials built into the BINDER

or added to the paint to form primary bonds to either the substrate or the previously applied coating with the specific aim of improving the dry or wet ADHESION, or both.<sup>79,83</sup> (ASTM)

**adhesion, specific** ADHESION between surfaces which are held together by valence forces of the same type as those which give rise to COHESION.<sup>79</sup> See also ADHESION, MECHANICAL.<sup>79</sup>

**adhesive** substance capable of holding materials together by surface attachment.<sup>79</sup> (ASTM)

Adhesive is the general term and includes among others CEMENT, GLUE, MUCILAGE, and PASTE. All of these terms are loosely used interchangeably. Various descriptive adjectives are applied to the term, "adhesive," to indicate certain characteristics as follows: physical form—liquid adhesive, tape adhesive; chemical type—silicate adhesive, resin adhesive; materials bonded—paper adhesive, metal-plastic adhesive, can label adhesive; and conditions of use—hot-setting adhesive.

**adhesive, assembly** ADHESIVE which can be used for bonding parts together, such as in the manufacture of a boat, airplane, furniture, and the like.<sup>79,57,175</sup> (ASTM)

The term, "assembly adhesive," is commonly used in the wood industry to distinguish such adhesives (formerly called "JOINT GLUES") from those used in making PLYWOOD (sometimes called "VENEER GLUES"). It is applied to adhesives used in fabricating finished structures or goods, or subassemblies thereof, as differentiated from adhesives used in the production of sheet materials for sale as such, for example, plywood or laminates.

**adhesive, cold-setting** ADHESIVE which sets at temperatures below 20°C.<sup>79</sup> (ASTM) cf. ADHESIVE, HOT-SETTING.<sup>79</sup>

**adhesive dispersion** two-phase ADHESIVE system in which one phase is suspended in a liquid.<sup>79</sup>

**adhesive, edge jointing** ADHESIVE used to BOND strips of VENEER together by their edges in the formation of larger sheets.<sup>57,79</sup>

**adhesive film** SYNTHETIC RESIN ADHESIVE, usually of the THERMOSETTING type, in the form of a thin dry film of resin, used under heat and pressure as an interleaf in the production of laminated materials (particularly PLYWOOD and densified wood).<sup>57,79</sup>

**adhesive, hot-setting** ADHESIVE which requires a temperature at or above 100°C to set it.<sup>79</sup> (ASTM) cf. ADHESIVE, COLD-SETTING.<sup>79</sup>

**adhesive, pressure sensitive** ADHESIVE made so as to adhere to a surface at room temperature by briefly applied PRESSURE alone.<sup>79</sup> (ASTM)

**adhesive tape test** see TAPE TEST.<sup>157</sup>

9

adip:

adipi

AL

TE

14

adob

br

adroi

adson

su

AD

su

fac

(R

adsoi

of

ca

th

we

(D

adsoi

cic

AD

adsoi

dis

FAC

(pt

(ch

adult

red

advar

bci

col

pla

are

aerati

a li

gas

liq

or c

tim

aerati

ing

enc

poi

erat

mo

aerogr

aerosc

This document has been prepared with great care on the part of many people to eliminate possible errors. However, neither the editors nor the FSCT make any warranty, expressed or implied, or assume any legal liability or responsibility for the accuracy or completeness of any information contained herein. In addition, reference to any specific product, process or service by tradename, trademark, manufacturer or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favor.

These definitions do not purport to address all the safety concerns, if any, associated with their use. It is the responsibility of the reader to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

---

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

---

ISBN Number 0-934010-04-8 (Casebound)  
ISBN Number 0-934010-05-6 (Perfect Bound)  
Library of Congress Catalog Number 95-061644

Copyright 1995 Federation of Societies for Coatings Technology  
492 Norristown Rd, Blue Bell, PA 19422-2350

*Printed in the United States of America*  
All rights reserved